



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,483	11/01/2001	Antonio L. P. Rotondaro	TI-31133	1903
23494 7	590 05/30/2002			
TEXAS INST	NSTRUMENTS INCORPORATED		EXAMI	NER
P O BOX 6554 DALLAS, TX	•		ESTRADA, I	MICHELLE
			ART UNIT	PAPER NUMBER
			2823	
			DATE MAILED: 05/30/2002	

Please find below and/or attached an Office communication concerning this application or proceeding.

		V.C.
	Application No.	Applicant(s)
	10/001,483	ROTONDARO, ANTONIO L. P.
Office Action Summary	Examiner	Art Unit
	Michelle Estrada	2823
The MAILING DATE of this communication Period for Reply	ion appears on the cover sheet with	h the correspondence address
A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNICAT - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) day of the period for reply is specified above, the maximum statutory are failure to reply within the set or extended period for reply will, the Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b). Status	TION. CFR 1.136(a). In no event, however, may a repation. ys, a reply within the statutory minimum of thirty y period will apply and will expire SIX (6) MONTION statute, cause the application to become ABA	ply be timely filed (30) days will be considered timely. HS from the mailing date of this communication. NDONED (35 U.S.C. § 133).
1) Responsive to communication(s) filed of	on	
2a) This action is FINAL . 2b)	∑ This action is non-final.	
3) Since this application is in condition for closed in accordance with the practice		
Disposition of Claims	nation	
4) Claim(s) <u>1-9</u> is/are pending in the applic		
4a) Of the above claim(s) is/are w	nthorawn from consideration.	
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>1-9</u> is/are rejected.		
7) Claim(s) is/are objected to.	and/or alastian requirement	
8) Claim(s) are subject to restriction Application Papers		
9)☐ The specification is objected to by the Ex		
10) The drawing(s) filed on is/are: a)		
Applicant may not request that any objection	- · · · · · · · · · · · · · · · · · · ·	
11) The proposed drawing correction filed on		sapproved by the Examiner.
If approved, corrected drawings are require	• •	
12) The oath or declaration is objected to by	the Examiner.	
Priority under 35 U.S.C. §§ 119 and 120		4404) 410 410
13) Acknowledgment is made of a claim for	foreign priority under 35 U.S.C. §	119(a)-(d) or (f).
a) All b) Some * c) None of:		
1. Certified copies of the priority doc		
2. Certified copies of the priority doc	·	·
 3. Copies of the certified copies of the application from the Internation * See the attached detailed Office action for 	nal Bureau (PCT Rule 17.2(a)).	-
14)⊠ Acknowledgment is made of a claim for do	omestic priority under 35 U.S.C. §	119(e) (to a provisional application).
 a) The translation of the foreign langua 15) Acknowledgment is made of a claim for defending the control of the foreign language. 	· · · · · · · · · · · · · · · · · · ·	
Attachment(s)		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-9 3) Information Disclosure Statement(s) (PTO-1449) Paper	48) 5) Notice of Inf	ummary (PTO-413) Paper No(s) formal Patent Application (PTO-152)
S. Patent and Trademark Office PTO-326 (Rev. 04-01)	ffice Action Summary	Part of Paper No. 3

Application/Control Number: 10/001,483

Art Unit: 2823

DETAILED ACTION

Double Patenting

Applicant is advised that should claims 2, 3 and 4 be found allowable, claims 6, 8 and 9 respectively will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

OK

The term "thin" in claims 1 and 6 is a relative term, which renders the claim indefinite. The term "thin" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. If applicant intends any particular thickness for the dielectric layer, it must be clearly recited.

Application/Control Number: 10/001,483 Page 3

Art Unit: 2823

In claim 3, lines 5 and 6, it appears that "50oC" and "250oC" respectively, should be replaced with --50°C-- and --250°C--.

✓ In claim 5, line 7, it appears that --said-- should be inserted before "capping".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 4, 5, 7 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Ohtani et al. (6,348,367).

Ohtani et al. discloses providing a silicon substrate 201 with an upper surface; forming an amorphous region (203) in said upper surface by exposing said upper surface to halogen species; and forming a dielectric layer of silicon oxide (209) on said amorphous region; wherein said halogen species is chlorine (See claim 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. as applied to claims 1, 4, 5, 7 and 9 above, and further in view of Ishihara et al. (6,240,610).

Ohtani et al. does not disclose further removing a thin dielectric layer from said upper surface prior to forming said amorphous region.

Ishihara et al. discloses removing a native oxide formed on the substrate surface prior to subsequent processing.

It would have been within the scope of one of ordinary skill in the art to combine the teachings of Ohtani et al. and Ishihara et al. to enable formation of the amorphous layer and further the removal of the dielectric layer provides a cleaning step to ensure quality.

Allowable Subject Matter

Claims 3 and 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Application/Control Number: 10/001,483

Art Unit: 2823

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Estrada whose telephone number is 703-308-0729. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 703-308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 (7724, 3431 and 3432) for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Mystradu MEstrada May 23, 2002 SUPERVISORY PRIMARY EXAMINER TECHNOLOGY CENTER 2800 Page 5